# 16 Environment policy (Dimension 13)

This chapter assesses the quality of legal and policy frameworks for the environment, and the extent of their implementation, in the six Western Balkan economies (WB6). The chapter analyses three sub-dimensions built around the OECD Green Growth Indicator framework, the European Commission's EU *acquis* indicators and the United Nations Sustainable Development Goal indicators. The first sub-dimension, resource productivity, assesses how policies facilitate efficient material resource use in production and waste generation and the extent to which they combat climate change. The second sub-dimension, natural asset base, examines to what extent the economies' natural assets are being preserved for future generations. The third sub-dimension, environmental quality of life, assesses the impact of environmental conditions and risks on people's quality of life and well-being.

### **Key findings**

- Climate change adaptation measures are gradually being introduced across the region, though climate change mitigation efforts need to be scaled up. Major climate-related risks are being identified throughout the region but renewable energy targets and schemes are lacking.
- Air pollution remains one of the main environmental challenges in the region, with PM<sub>2.5</sub> levels two to three times above the maximum limits recommended by the World Health Organization. However, some progress has been achieved thanks to relatively well-developed legislative frameworks, local air quality plans, upgraded monitoring systems and awareness-raising activities.
- All WB6 economies have adopted policy frameworks for biodiversity conservation. Plans
  for endangered species and protected areas have also been adopted in most WB6 economies.
  Nevertheless, biodiversity and forestry monitoring systems and public inventories are rarely in
  place, which impedes proper implementation.
- The groundwork for the freshwater management legislative framework has been done in
  most assessed economies. However, international co-ordination of transboundary river basins
  has primarily been driven by donors rather than WB6 economies. Although all assessed
  economies have a legal framework for planning and managing hydropower plants (the main
  source of renewable energy in the region), in practice mandatory environmental impact
  assessments have largely been circumvented.
- Water supply and sanitation systems remain inadequate. Investments are ongoing but
  water service fees remain too low to cover or complement the infrastructural investment costs
  and water supply services. Moreover, insufficient institutional capacities and poor co-ordination
  among responsible local authorities impede implementation of water management measures.
- There have been no major changes to land-use frameworks in most assessed economies, except for North Macedonia. Progress has been observed in Albania, the Republika Srpska (RS) in Bosnia and Herzegovina, and Kosovo, where municipal development plans are being prepared together with local municipalities to foster sustainable territorial development and rational land use.
- Recycling rates of municipal waste remain extremely low across the region. They are less than 5% for all economies except for Albania (18.5%) and significantly lower than in the European Union (47%). Some actions have been undertaken on waste management and to develop a circular economy. However, there are no specific policy frameworks. Serbia is the only economy to have adopted a circular economy roadmap.
- Industrial waste management frameworks could improve further and the policy and legislative bases for soil protection are almost non-existent. Progress on identifying contaminated areas has only been recorded in Kosovo and Montenegro.
- Unregulated burning and illegal dumping of waste is still prevalent in the region, posing
  problems to the environment and public health through groundwater, soil and air pollution. Some
  projects are being implemented to clean up and combat illegal landfills, but progress has been
  limited.

#### Comparison with the 2018 assessment

Since the last assessment, the six Western Balkan (WB6) economies have slightly improved their scores in the environment policy dimension (Figure 16.1). While the situation in Bosnia and Herzegovina<sup>1</sup> has improved, its score is still the lowest of all the assessed economies. Montenegro and North Macedonia have made the most progress between 2018 and 2021 and rank first and second respectively in the Western Balkan region for environment policy.

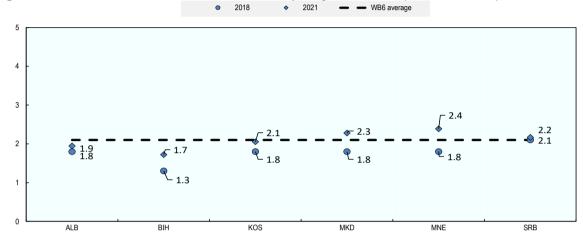


Figure 16.1. Overall scores for the environment policy dimension (2018 and 2021)

Note: Scores for 2021 are not directly comparable to the 2018 scores due to the addition of new sub-dimensions and relevant qualitative indicators, and removal of some sub-dimensions and qualitative indicators. Therefore, changes in the scores may reflect the change in methodology more than actual changes to policy. The reader should focus on the narrative parts of the report to compare performance over time. See the Methodology and assessment process chapter for information on the assessment methodology.

#### Implementation of the Competitiveness Outlook 2018 recommendations

There has been only limited progress overall on implementing the policy recommendations made in the CO 2018 (Table 16.1), although there are large differences in implementation across economies. Moderate advances have been made in accelerating the transition to a low-carbon economy, but improvements in defining clear roles and responsibilities at local levels, strengthening natural asset management, and institutionalising the collection of key environmental data are limited.

Table 16.1. Implementation of the CO 2018 policy recommendations: Environment policy

Competitiveness Outlook 2021							
CO 2018 policy recommendations	Main developments during the assessment period	Regional progress status					
Integrate environmental considerations and international commitments into the main economic and sectoral policies	<ul> <li>Progress has been achieved in harmonising legislation with the EU acquis, in particular air quality and industrial risks and accidents.</li> <li>Very little progress has been achieved in translating multilateral environmental agreements into relevant policy frameworks, such as the UN Convention to Combat Desertification.</li> </ul>	Limited					
Accelerate the transition to a low-carbon and circular economy	<ul> <li>Climate change goals have been integrated into energy strategies in Bosnia and Herzegovina and North Macedonia and in the transport strategy in Albania.</li> <li>Serbia has developed a roadmap for circular economy commitments and Albania and North Macedonia are preparing documents that will include a circular economy framework.</li> <li>Some actions have been taken, such as improving recycling rates of packaging waste and introducing extended producer responsibility in some WB6 economies (North Macedonia, Republika Srpska in Bosnia and Herzegovina, and Serbia).</li> <li>The current energy mix is still highly dependent on fossil fuels and only a few renewable energy targets have been set.</li> </ul>	Moderate					
Increase the use of economic instruments to incorporate environmental costs and benefits into budgets	<ul> <li>Although the polluter pays principle is legislated, it is still not applied effectively.</li> <li>Coal is still subsided in some WB6 economies (Kosovo, Serbia) and renewable support schemes remain weak.</li> <li>Across the WB6, waste disposal and water tariffs are too low to cover service costs (including infrastructure construction and maintenance). Projects remain largely dependent on donor funding.</li> </ul>	None					
Define clear roles and responsibilities in the institutional frameworks for environmentally sustainable development to strengthen policy implementation, enforcement and compliance	<ul> <li>Poor domestic co-ordination among water-related public institutions is hampering proper policy implementation (including international projects).</li> <li>Forestry legal and policy frameworks are in place, but local forest management human and financial capacities are insufficient which limits proper enforcement and compliance (especially for tree logging and forest fires).</li> <li>In terms of land use, Albania, Kosovo and the Republika Srpska in Bosnia and Herzegovina are preparing municipal land development plans together with local municipalities, which aim to foster sustainable territorial development and rational land use.</li> </ul>	Limited					
Improve framework conditions for green investment and innovation	<ul> <li>Measures to provide incentives for businesses to adopt greener technologies remain sporadic and are still largely lacking in the region.</li> <li>One exception is Serbia's recently adopted roadmap for a circular economy which encourages industry to innovate, increases market opportunities for production through circular business models, creates new jobs and improves the business climate while preserving the environment.</li> <li>For more please see sub-dimension 1.3 on green investment in the investment chapter (Dimension 1).</li> </ul>	Limited					
Strengthen natural asset management	<ul> <li>Implementation of water management strategies has been limited. Donors have driven the international co-ordination of transboundary river basins, but efforts are hampered by poor domestic as well as intraregional co-ordination.</li> <li>Local authorities' resources are limited for capacity building and to strengthen forest management and law enforcement. National forest inventories are lacking in Bosnia and Herzegovina, Kosovo and North Macedonia.</li> <li>No major changes were recorded to land-use legislative and policy frameworks (except some progress in the legislation of North Macedonia).</li> </ul>	None					
Institutionalise the collection of key environmental statistics, and policy monitoring and evaluation activities	<ul> <li>Overall, there is insufficient timely and accurate data for the government to design and monitor progress in implementing environmental policies.</li> <li>Progress has been made in monitoring and collecting data on air quality and biodiversity (new monitoring stations and improved information systems) in most WB6 economies.</li> <li>Data and projections for water demand in the agriculture and industry (including energy) sectors and from households are not available and consequently do not guide decisions about handling competing uses.</li> <li>Progress in collecting key forestry statistics has been made in Montenegro and Serbia. Land-use data are still largely lacking across the region.</li> </ul>	Limited					

#### Introduction

Climate change is increasingly affecting people's lives, disrupting economies and transforming ecosystems. Considering the Western Balkans' vulnerability to the impacts of climate change, building resilience to natural disasters and other environment-related risks will be necessary for the region's economic growth and people's well-being. To develop and maintain their competitiveness (especially in the long run), the WB6 economies need to pursue green growth, i.e., sustaining economic growth while safeguarding their natural assets to maintain the environmental services on which their citizens' well-being depends. By aiming to achieve the net-zero goal for greenhouse gas emissions and mainstreaming environmental considerations into all areas of policy, including by adopting a circular economy, the WB6 can increase their efficiency and competitiveness, spurring green innovation, new markets and jobs. Current business models need to adapt to account for climate change, resource bottlenecks, air and water pollution, and irreversible biodiversity loss (OECD, 2017<sub>[1]</sub>).

The Competitiveness Outlook's environment policy dimension assesses the WB6's key environmental characteristics, and their policies to protect natural resources and facilitate their sustainable use. Policies that affect the environment are cross-cutting, meaning that policy design and implementation need to be well integrated into key economic and sectoral policies – both vertically (international, central, local) and horizontally (inter-sectoral and across line ministries) – including energy, transport, agriculture, and health. Therefore, this chapter is related to all other dimensions in the Competitiveness Outlook, but has strongest links to the following:

- Chapter 4. Investment policy and promotion is key to enabling an economy to establish a
  specific environment that is conducive to scaling up green investments to support green growth.
- Chapter 7. Tax policy can offer incentives for adopting environment-friendly technologies and discouraging harmful practices.
- Chapter 14. Transport policy is an essential component for reducing emissions across the region through sustainable transport frameworks, containing adequate rules and options for green fuel and car models. Environment policy is also directly related to the impact assessment for constructing transport infrastructure.
- Chapter 15. Energy policy and power generation have impacts on air, water and land and account
  for large shares of WB6 economies' greenhouse gas emissions. Hence, energy policy frameworks
  need to be fully aligned with climate change objectives, and policies supporting energy efficiency
  and renewable energy sources need to be implemented.
- Chapters 17 and 18. Agriculture and tourism depend on high-quality natural assets and are particularly vulnerable to the negative effects of air, land, and water pollution as well as climate change for instance ambient air pollution can reduce crop yields, and litter can deter tourists. In turn, these sectors also use natural resources and can be sources of local and transboundary pollution; their activities must therefore be managed to minimise any negative environmental impacts.

#### Assessment framework

#### Structure

This chapter examines policies to facilitate greener growth in the WB6 by assessing three broad subdimensions:

- 1. **Sub-dimension 13.1: Resource productivity** assesses how policies facilitate efficient material resource use in production and waste generation and the extent to which they combat climate change.
- 2. **Sub-dimension 13.2: Natural asset base** focuses on the extent to which natural assets are being preserved and managed for the economy and future generations (especially freshwater, biodiversity, forestry and land).
- 3. **Sub-dimension 13.3: Environmental quality of life** examines how environmental conditions affect people's health and quality of life by measuring air pollution frameworks, water supply and sanitation systems, and industrial waste management.

The three sub-dimensions are based on the OECD Green Growth Indicator framework (Box 16.1) and indicators are also directly linked to the United Nations Sustainable Development Goals. The OECD supports the United Nations in ensuring the success of the 2030 Agenda for Sustainable Development by bringing together its existing knowledge, and its unique tools for monitoring performance. Figure 16.2 shows how the sub-dimensions and their indicators make up the environment policy dimension assessment framework.

The assessment was carried out by collecting qualitative data with the help of questionnaires filled out by governments, as well as face-to-face interviews with relevant non-government stakeholders. Alongside these qualitative inputs, quantitative data on certain indicators – provided by the economies' statistical offices, relevant ministries and agencies, and other databases – formed an integral part of this assessment. For more information on the methodology see the Assessment methodology and process chapter.

#### Box 16.1. Green Growth Indicator Framework

The CO environment dimension's assessment framework is based on the OECD Green Growth Indicator (GGI) framework, developed by the OECD in the 1990s (last updated in 2017).

**Sub-dimension 13.1: Resource productivity** corresponds to GGI area 1. "Environmental and resource productivity - How productive is the economy in using natural capital? Indicates whether economic growth is becoming greener with more efficient use of natural capital and to capture aspects of production which are rarely quantified in economic models and accounting frameworks."

**Sub-dimension 13.2: Natural asset base** corresponds to GGI area 2. "Natural asset base - Are we preserving the natural asset base of our economy? Indicates the risks to growth from a declining natural asset base."

**Sub-dimension 13.3: Environmental quality of life** corresponds to GGI area 3. "Environmental dimension of quality of life – How does environmental quality interact with people's health and lives? Indicates how environmental conditions affect the quality of life and wellbeing of people."

The overall assessment also considers GGI area 4. "Economic opportunities and policy responses – are policies effective in delivering green growth? Indicates the effectiveness of policies in delivering green growth and describe the societal responses needed to secure business and employment opportunities." It also assesses whether tools to complement environmental policies are in place and how efficiently and effectively they are implemented.

By using the GGI framework, this assessment leverages the decades of work at an international level to assess the environment in a way that is internationally comparable and joins over 130 green growth publications in OECD and partner economies.

Source: (OECD, 2017<sub>[2]</sub>), Green Growth Indicators Framework, https://www.oecd.org/greengrowth/green-growth-indicators.

Figure 16.2. Environment policy dimension assessment framework

Environment policy dimension							
Outcome indicators: 1. Composition of value added by economic sector							
Sub-dimension 13.1 Resource productivity	Sub-dimension 13.2 Natural asset base	Sub-dimension 13.3 Environmental quality of life					
Qualitative indicators     Climate change mitigation and adaptation     Circular economy framework     Municipal waste management	Qualitative indicators     4. Freshwater management     5. Biodiversity and forest management framework     6. Land-use management framework	Qualitative indicators  7. Air quality framework  8. Water supply and sanitation system  9. Industrial waste management framework					
Quantitative indicators     Droughts, floods, extreme temperatures (% of population)     Generation of municipal waste per capita     3. Share of population with access to municipal solid waste collection	Quantitative indicators     4. Renewable freshwater resources per capita     5. Land use by category and per capita     6. Forestry resources (gross value added)     7. Share of protected terrestrial areas	Quantitative indicators  8. Annual mean population exposure to PM <sub>2.5</sub> air pollution  9. Share of population with access to safe drinking water and sewage treatment  10. Residential wastewater discharged without treatment  11. Contamination sites					
OECD Instruments OECD Green Growth Indicator Framework Area 1: "Environmental and resource productivity"  Sustainable Development Goals Goal 13: Take urgent action to combat climate change and its impacts. Goal 12: Ensure sustainable consumption and production patterns. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.	OECD Instruments OECD Green Growth Indicator Framework Area 2: "Natural asset base"  Sustainable Development Goals Goal 6: Ensure availability and sustainable management of water and sanitation for all. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development and Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. Goal 3: Ensure healthy lives and promote well-being for all at all ages.	OECD Instruments OECD Green Growth Indicator Framework Area 3: "Environmental dimension of quality of life"  Sustainable Development Goals Goal 3: Ensure healthy lives and promote well-being for all at all ages and Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 6: Ensure availability and sustainable management of water and sanitation for all.					

The leaders of the WB6 endorsed the Common Regional Market (CRM) 2021-2024 Action Plan (AP) at the Berlin Process Summit held on 10 November 2020 in Sofia. The Action Plan is made up of targeted actions in four key areas: 1) a regional trade area; 2) a regional investment area; 3) a regional digital area; and 4) a regional industrial and innovation area.

The regional industrial and innovation area includes a component on green and circular economy value chains (Priority 8.4). As part of this area, the WB6 economies commit to closely transform their industrial sectors, shape their value chains and prepare them for the realities of today and the challenges of tomorrow. The findings in the resource productivity sub-dimension, and in particular the circular economy indicator, can inform the implementation of the actions under this component (Box 16.3).

#### Key methodological changes to the assessment framework

The CO 2021 environment policy dimension assessment framework has been slightly redesigned and restructured since the 2018 edition. It now 1) includes the key priorities of the EU Green Deal (European

Commission, 2019[3]), such as the increasing importance of a circular economy; and 2) places a stronger focus on measures to build resilience to climate change-related natural disasters, which present a growing challenge for the WB6. The sub-dimension on "policies for green growth", present in the 2018 assessment, has been removed and integrated into the three other sub-dimensions.

#### **Environment policy performance and context in the WB6**

Outcome indicators assess the performance of overall framework conditions for enabling businesses to be competitive while taking environmental concerns into account. The WB6 lack data for measuring outcome indicators such as environmentally adjusted economic productivity (carbon, water or material productivity). Moreover, greenhouse gas (GHG) inventories have not been conducted by the WB6 during the assessment period. Instead, the composition of value added between economic sectors (Figure 16.3) sets the broader context for looking at green growth, as economic sectors use natural capital and pollute in different ways. The industry sector includes energy, mining, and construction – as such, it is the most resource-intensive economic sector. The agriculture sector uses significant amounts of land and water, and agricultural inputs may be a source of pollution. The service sector is the least resource intensive.

Services contribute the greatest share of value added in the WB6 economies, accounting on average for about 52% of gross domestic product (GDP) (Figure 16.3). However, this share is smaller than in the OECD and CEEC-11,<sup>2</sup> where services contribute about 70% and 58% respectively on average. Industry contributes about 23% to value added in the WB6, as in OECD and EU countries. Agriculture's share in the six economies accounts for 8.5% on average, ranging between 5.6% in Bosnia and Herzegovina to 18.5% in Albania. This is significantly larger than OECD and CEEC-11 averages, which are each at about 1.4% and 2.7% respectively.

% of GDP Agriculture Industry Services 100 90 80 70 60 50 40 30 20 10 ٥ MKD BIH KOS MNF CEEC-11 EU-28 average OECD average

Figure 16.3. Composition of value added by economic sector (2019)

Note: CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: (World Bank, 2019[4]), "Value added by sector" (dataset), https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS.

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Air quality is still a predominant concern in the region, with pollution levels ranking among the highest in Europe – see Environmental quality of life (Sub-dimension 13.3) and Figure 16.12. These levels are of even greater concern in the context of the COVID-19 pandemic. Exposure to ambient and indoor air pollution increases the risk of cardiovascular, respiratory and developmental diseases, as well as premature death, thus making individuals even more vulnerable to COVID-19 (OECD, 2020<sub>[5]</sub>). Moreover, non-OECD, non-EU European economies, including the WB6, are among the most susceptible to changes in crop yields caused by air pollution, especially wheat, with a model predicting yield decreases of up to 20% by 2060 (OECD, 2016<sub>[6]</sub>). Given that agriculture accounts for a considerably larger portion of the WB6 economies than in the OECD, these economies could be particularly vulnerable to the negative effects of air pollution.

#### Resource productivity (Sub-dimension 13.1)

This first sub-dimension assesses whether policies facilitate efficient material resource use in production and waste generation and the extent to which they address climate change goals. A high level of resource productivity safeguards the environment by reducing the amount of resources an economic activity requires and thereby lessening the associated environmental impacts; it also improves resource security and strengthens economic competitiveness (OECD, 2016<sub>[7]</sub>). Three qualitative indicators are used to assess resource productivity in the six WB economies. These explore the existence and degree of implementation of frameworks for: 1) climate change adaptation and mitigation; 2) a circular economy; and 3) municipal solid waste management (Table 16.2).

Performance across all WB6 economies is similar for the resource productivity sub-dimension (Table 16.2), although Montenegro has made the most progress since the previous assessment. On average, the six economies score 2.0 overall, indicating that relevant policy frameworks have been adopted. Nevertheless, they have considerable potential for using their available natural resources more productively. Climate change mitigation and adaptation as well as municipal solid waste management are equally advanced with overall scores of 2.3, indicating that policy frameworks are in place, challenges have been identified and implementation has begun. However, circular economy initiatives are still at an early stage of development, and although some actions have been taken, policy frameworks are still largely lacking throughout the region.

Table 16.2. Scores for Sub-dimension 13.1: Resource productivity

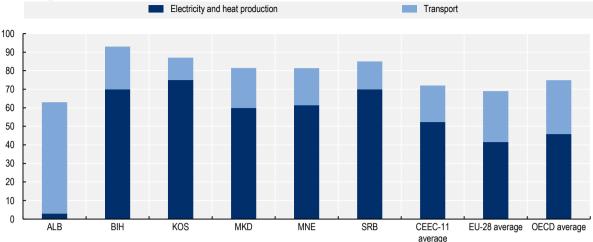
Sub-dimension	Qualitative indicator	ALB	BIH	KOS	MKD	MNE	SRB	WB6 average
Sub-dimension 13.1: Resource productivity	Climate change mitigation and adaptation	2.0	2.0	2.0	2.5	3.5	2.0	2.3
	Circular economy framework	1.0	1.5	1.0	1.0	1.0	2.0	1.3
	Municipal solid waste management framework	2.5	1.5	2.5	2.5	2.5	2.5	2.3
Sub-dimension average score		1.8	1.7	1.8	2.0	2.3	2.2	2.0

#### Climate change adaptation legal and policy frameworks are gradually being introduced

Electricity generation and heat production account for the majority of carbon dioxide ( $CO_2$ ) emissions in the six economies – ranging from 61.4% in Montenegro to almost 75% in Kosovo (Box 16.4) – followed by the transport sector, which accounts for around 18% on average. The exception is Albania, where 60% of its  $CO_2$  emissions come from transport, as almost 100% of its electricity generation comes from hydropower.

Figure 16.4. CO<sub>2</sub> emissions by sector (transport, electricity and heat production)

% of total CO<sub>2</sub> emissions



Note: Latest data available for each economy. CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: Data based on responses to Environmental Policy Questionnaires sent by domestic authorities; for EU and OECD see (World Bank, 2020<sub>[8]</sub>), "CO<sub>2</sub> emissions by sector" (dataset), https://data.worldbank.org/indicator/EN.CO2.TRAN.ZS.

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Climate change adaptation legal and policy frameworks are being gradually introduced across the six economies, while climate change mitigation efforts need to be stepped up. Albania (2021), Montenegro (2019), and Serbia (2021) have recently adopted laws on climate change which establish the institutional frameworks and rules for monitoring, reporting and verifying greenhouse gas (GHG) emissions. While Bosnia and Herzegovina (BIH), Montenegro and North Macedonia already had climate change strategies in place, Albania and Kosovo have adopted climate change strategies and related action plans on mitigation and adaptation since the last assessment. This leaves Serbia as the only economy that has not adopted a long-term strategy that encompasses energy and climate targets, although it was developing the integrated National Energy and Climate Plan (NECP) at the time of drafting.<sup>3</sup> Climate change goals have been integrated into sectoral strategies in Albania (transport), Bosnia and Herzegovina (energy), and North Macedonia (energy). North Macedonia was preparing a long-term strategy on Climate Action to 2050 at the time of drafting and is the first contracting party under the Energy Community to integrate the pillars of energy and climate into its national energy strategy (European Commission, 2020 [9]). Further alignment is needed by Bosnia and Herzegovina and Kosovo (especially with regards to transport, industry and agriculture policies). No systematic monitoring and evaluation of the strategies are conducted in Bosnia and Herzegovina or Kosovo, while Albania and Serbia plan to do so under their recently adopted laws on climate change.

Apart from Kosovo, all WB6 economies are Non-Annex I signatories to the UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement and are also parties to the Kyoto Protocol. As requested by the Paris Agreement, the five economies have submitted their Nationally Determined Contributions (NDCs), which are currently being updated. All five economies have to submit regular reports in the form of national communications and Biennial Update Reports to the UNFCCC. Nevertheless, the frequency of these reports varies considerably among the economies (UNFCCC, n.d.[10]).<sup>4</sup> As for Kosovo, its Energy and Climate Plan (2021-2030), which was being developed at the time of drafting, should set GHG emission reduction targets.

In general, the transition to renewables has been progressing very slowly in the region. While Albania's new Law on Climate Change sets a 32% renewable energy target by 2030, North Macedonia has revised its original 28% renewable energy target downwards to 23.9% of gross final energy consumption. As in

the last assessment, most of the renewable energy produced in the region comes from hydroelectricity, despite the great untapped potential for renewable energy in all the economies, especially solar and wind (see Energy policy chapter).

Major climate-related risks have been identified in Bosnia and Herzegovina, Kosovo and North Macedonia as well as to some extent in Albania and Serbia. In Montenegro, the Ministry of the Interior is currently preparing a disaster risk assessment which will cover major climate change-related risks. The WB6 have also undertaken actions related to water-related disasters, and floods in particular. Some flood risk management measures have been implemented through the regional project Adaptation to Climate Change through Transboundary Flood Risk Management in the Western Balkans (2016-2020). However, other natural disasters, such as earthquakes, have not been taken as much into consideration in the region.

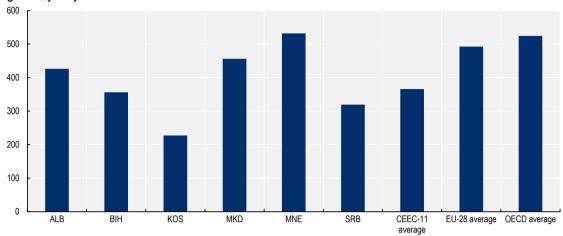
#### Circular economy frameworks remain underdeveloped in the region

Limited progress has been achieved in developing circular economy frameworks in all WB6 economies except for Serbia. With an average of 1.3, scores for the circular economy framework are the lowest for all indicators in the environment policy dimension (Table 16.2).

In all six economies except Montenegro, waste generation per capita remains below the EU and OECD averages (Figure 16.5). Nevertheless, very little has been done to decrease the amount of waste and volumes are increasing constantly. Recycling rates for municipal waste in all six economies also remain extremely low (Figure 16.6). Albania recycles around 18.5% of its municipal waste, which is the highest rate in the WB6 region, but still significantly lower than the European Union average (47%). All other assessed economies recycle less than 5% of their municipal waste, and the rest is largely landfilled. Only a few recycling centres exist, although new recycling yards and sorting plants are being constructed throughout the region. Some progress has been achieved since the last assessment: North Macedonia has increased the recycling rate of its packaging waste, the RS in BIH has established a packaging waste management system and introduced extended producer responsibility, and Serbia has a new regulation for reducing packaging waste (2014-2020). According to relevant authorities, the recycling industry is currently gaining momentum in Kosovo as the private sector takes advantage of a lucrative opportunity for exporting secondary material within the region and to several EU Member States. In addition, awareness-raising activities on recycling are organised in schools throughout the WB6, though on a rather ad-hoc basis.

Figure 16.5. Municipal waste generation per capita (2018)

Kilograms, yearly



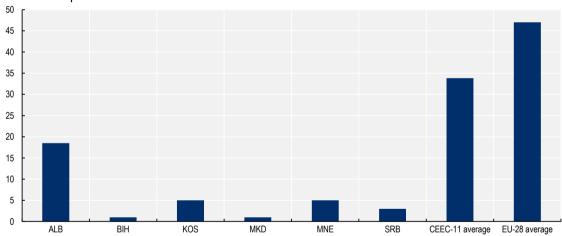
Note: CEEC-11=the 11 Central and Eastern European countries joining the EU: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: Data based on responses to Environmental Policy Questionnaires sent by domestic authorities and statistical offices; (OECD, 2020<sub>[11]</sub>), OECD Environment Statistics (database), <a href="https://data.oecd.org/waste/municipal-waste.htm">https://data.oecd.org/waste/municipal-waste.htm</a>.

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Figure 16.6. Municipal waste recycling rates (2018)

% of total municipal waste



Note: CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: Data based on responses to Environmental Policy Questionnaires sent by domestic authorities and statistical offices; (Eurostat, 2020<sub>[12]</sub>), Eurostat Statistical Recovery Dashboard, <a href="https://ec.europa.eu/eurostat/data/database">https://ec.europa.eu/eurostat/data/database</a>.

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In 2020, Serbia was the first WB6 economy to have prepared a roadmap for a circular economy, which it aims to harmonise with EU recommendations (Box 16.2). North Macedonia is preparing a new Law on Waste, which should promote the circular economy and the use of secondary raw materials, in line with the EU *acquis* in this area. The Albanian government also plans to revise its legislative framework in this area, such as through the new law on extended producer responsibility, which is slated for adoption during 2021 and which will promote a circular economy. The legislative framework in all other economies is being developed, although the topic of circular economy is mostly covered indirectly in different strategies.

The findings of this assessment are also relevant for the WB6 economies' implementation of the Common Regional Market Action Plan, which includes a component on green and circular economy value chains (Box 16.3).

#### Box 16.2. Serbia's roadmap for a circular economy

A Special Working Group for a Circular Economy (CE) within the Ministry of Environmental Protection developed a Roadmap for a Circular Economy in Serbia in April 2020. This important guiding document outlines courses of action for the transition from a linear to circular economy in Serbia. It is modelled on similar documents developed in EU countries, such as Finland, France, the Netherlands, Slovenia and Spain. In order to be fully aligned with the EU's newly adopted documents (the Green Deal and the new Circular Economy Action Plan), this initial document will be harmonised with EU recommendations. The working group will undertake a range of activities for this purpose, including developing an updated Circular Economy Roadmap 2.0.

The aim of the roadmap is to initiate a dialogue between decision makers and representatives of industry, academia and civil society in order to encourage industry to innovate, increase market opportunities for production through circular business models, create new jobs and improve business while preserving the environment. It aims to encourage the whole of society to adopt radical changes in their attitudes towards resource limits. The roadmap is accompanied by a communication plan that contains measures to raise public awareness on CE and whose main goal is to inform and involve as many actors as possible and thus achieve broad social consensus for implementation.

The key drivers for developing the roadmap are grouped into four main areas:

- 1) **Economic**: boosting competitiveness, market development, (horizontal) economic diversification and development, and application of new business models and new technologies.
- 2) **Political**: regional positioning, creating a national political consensus, pursuing the EU accession process and implementing various international obligations on environmental protection and climate change.
- 3) **Environmental**: reducing waste, reducing GHG emissions, conserving natural resources, and improving energy independence and the use of renewable energy.
- 4) **Social**: improving social welfare, improving consumer rights, decreasing household budgets, improving people's health and creating green jobs.

Source: (Government of Serbia, 2020<sub>[13]</sub>), Roadmap for a Circular Economy, <a href="https://www.ekologija.gov.rs/sites/default/files/2021-01/mapa-puta-za-cirkularnu-ekonomiju-u-srbiji.pdf">https://www.ekologija.gov.rs/sites/default/files/2021-01/mapa-puta-za-cirkularnu-ekonomiju-u-srbiji.pdf</a>.

#### Box 16.3. Towards green and circular economies in the Common Regional Market

The regional industrial and innovation area of Common Regional Market (CRM) 2021-2024 Action Plan includes a component on green and circular economy value chains (Priority 8.4). The following key findings of the CO 2021 resource productivity sub-dimension, and in particular the circular economy indicator, can inform the implementation of the actions under this component:

- With the adoption of its Roadmap for a Circular Economy in 2020, Serbia is the first economy in the region to prepare such a document, in line with its EU commitments.
- In all other economies, circular economy, sustainable production, and consumption standards are not yet established.
- Albania and North Macedonia are in the process of preparing documents to promote a circular economy framework.
- The legislative framework in other economies is being developed, although the topic of circular economy is mostly covered indirectly in different strategies and thus not supported by proper implementation.
- Some specific actions have been taken in some economies, such as improving recycling rates
  of packaging waste and introducing extended producer responsibility mechanisms.
   Implementation remains limited otherwise.

#### Municipal solid waste strategies are in place and starting to be implemented

Municipal solid waste management safeguards the environment and public health. All six economies have strategies that lay out objectives for municipal solid waste management, and implementation has begun. Since the last assessment, Albania has adopted two waste management strategies<sup>7</sup> (in 2019 and 2020) and laws and strategies are being revised in Kosovo, Montenegro and Serbia to transpose the relevant EU directives. Serbia's implementation is quite advanced thanks to its good institutional capacity and strong co-ordination with local authorities. However, although mechanisms for monitoring implementation or targets are envisaged in the strategies, they are largely lacking in all assessed economies.

Across the WB6, waste disposal tariffs are too low to cover the costs of municipal waste collection, let alone the costs of infrastructure construction or maintenance. Consequently, waste collection and treatment infrastructure remains largely dependent on donor funds, which impedes regular maintenance (Eunomia, 2017<sub>[14]</sub>). In a positive move, Albania has developed a new methodology to calculate waste management costs, which has improved its waste service.

Primary waste selection is almost non-existent throughout the region and there is no systematically organised separate collection, sorting or recycling of municipal waste. Nevertheless, waste separation at source has been slowly introduced since the last assessment in certain municipalities in Kosovo and Montenegro, and the RS in BIH has introduced "green islands" for the separate collection of waste in public areas. Moreover, there has been large-scale investment in new waste treatment facilities in Albania and Serbia.

The continued prevalence of unregulated burning and illegal dumping of waste in the region poses threats to the environment and public health through groundwater, soil and air pollution (UNECE, 2019<sub>[15]</sub>). Although all assessed economies have sanctions and mechanisms to report these practices in their legal frameworks, implementation has been weak. Some actions are underway to improve the situation: civil society organisations have been mapping illegal dumpsites across BIH and Montenegro; projects to clean up and combat illegal landfills have been implemented in Kosovo and Serbia; illegal dumpsites are being closed in BIH; and Albania's Waste Management Plan foresees replacing illegal dumpsites with 10 regional controlled landfill sites by 2028.

#### The way forward for resource productivity

- Improve waste management by enforcing measures to separate and reduce waste and increase recycling and recovery in line with circular economy principles. The WB6 economies should strengthen their legal and policy frameworks for a circular economy in line with EU regulations. Serbia's Roadmap for a Circular Economy could serve as a model (Box 16.2). Governments need to step up enforcement efforts and strengthen co-operation with local governments to improve waste management.
- Put in place educational and awareness raising activities for waste prevention, separate collection, waste reduction and recycling. Public awareness and support are key factors in changing behaviour and thus for the success of waste policies. Good practice from OECD countries might serve as inspiration (Box 16.4).

#### Box 16.4. Municipal waste management: public information and awareness raising in the OECD

Educating young people can be a key pathway to raising public awareness. Several OECD countries have established environmental education initiatives. For example, Colombia's Communication and Environmental Agenda (2010-14) fostered educational projects on the environment across all school levels. Israel has a Green Education Project and also provides grants for "green schools" that promote resource efficiency and the separate collection of waste streams.

Poland's Ministry of Environment organised awareness campaigns such as "Don't Litter Your Conscience", which uses the character of a priest to tell parishioners to separate recyclable waste and not burn household waste in their gardens or dump it illegally. Campaigns and activities to address illegal dumping are carried out in Hungary, where the Ministry for Agriculture supports the "TsSzedd!" ("Pick up!") Campaign to raise awareness of sound waste management practices.

Civil society organisations can also play an important role in promoting public awareness. "Let's do it! My Estonia" is an independently organised annual day of community activities, including litter clean-up. In Slovenia, about 200 000 volunteers worked together in 2010 for "Let's clean Slovenia in one day", involving activities to clean up litter and illegal waste sites matched with environmental education.

Some OECD countries work via local government. In Israel, for example, the Ministry of Environmental Protection funds municipal activities for environmental education and awareness raising, and the country's 2010 Recycling Action Plan acknowledges the need for further actions to raise public awareness and change behaviour towards separate collection.

Working with business, including producer responsibility organisations (PROs), can play an important role in fostering public awareness of recycling. In Korea, voluntary agreements with business include activities to raise public awareness on waste reduction and recycling; the country's PROs spend between 1% and 5% of their profits on information and awareness campaigns.

Source: (OECD, 2019[16]), Waste Management and the Circular Economy in Selected OECD Countries: Evidence from Environmental Performance Reviews, https://doi.org/10.1787/9789264309395-en.

• Establish a regional Green Start-up Network based on existing domestic start-up programmes. As recommended in the CRM Action Plan (2021-2024); (Box 16.3), this network should identify key circular and green business opportunities and boost business networking. Good practice from the Interreg Europe Green Start-up Support (GRESS) project, financed by the EU, could serve as a good example for a WB6 green regional network (Box 16.5).

#### Box 16.5. Green start-up support

The shift towards a low-carbon economy offers many business opportunities. The EU Small Business Act highlighted that the EU and Member States should enable small and medium-sized emterprises (SMEs) to exploit these opportunities. The objective of the Green Start-up Support (GRESS) project is to improve SMEs' competitiveness by strengthening capacities for the formation of sustainable and competitive start-ups and spin-offs within the green economy.

The partners (Bulgaria, Greece, Italy, Norway and Poland) apply a policy-learning process involving five steps: 1) mapping the status of green growth in each region; 2) scanning and exchanging experience and identifying good practice for mutual learning; 3) assessing and ranking relevant practices through peer assessments in Regional Stakeholder Groups; 4) generating ideas on policy interventions with interregional knowledge transfer; and 5) developing and monitoring regional action plans.

The resulting policies are envisaged to improve awareness of the opportunities for SMEs in the green and blue economy, increase the number of participants and improve the quality of training programmes for green start-ups, attract more SMEs to participate and succeed in public procurement for green products and services, improve SMEs' access to risk capital outside the local region, make cities and regions more attractive for young entrepreneurs in green sectors, launch incentive schemes for green start-ups, enhance the performance of ecosystems, and increase the number of competitive start-ups and spin-offs within the green economy and improve their chances of survival.

Source: (GRESS-Interreg Europe, n.d.[17]), Green Startup Support, Project Summary, https://www.interregeurope.eu/gress.

#### Natural asset base (Sub-dimension 13.2)

This sub-dimension assesses the extent to which the natural asset base is being preserved for economic activity and for future generations. Safeguarding the quantity and quality of water, forest and biodiversity resources protects current and future public health and the livelihoods that depend on them. This entails effective management of resource supply and demand as well as balancing competing uses. Three qualitative indicators assess the presence and implementation of management frameworks for: 1) freshwater; 2) biodiversity and forests; and 3) land use.

On average, the WB6 economies achieved a score of 2.1 for the natural asset base sub-dimension (Table 16.3), signifying that the relevant policy frameworks are mostly adopted. Across these economies, biodiversity and forestry policies are the most advanced and implementation is beginning, but inventories and monitoring programmes are still lacking. Little progress has been achieved on land-use management frameworks and implementation is slow.

Table 16.3. Scores for Sub-dimension 13.2: Natural asset base

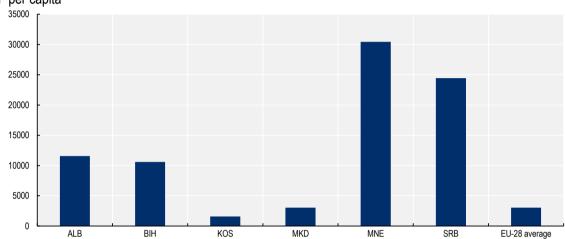
Sub-dimension	Qualitative indicator	ALB	BIH	KOS	MKD	MNE	SRB	WB6 average
Sub-dimension 13.2: Natural asset base	Freshwater management	2.5	2.0	2.0	2.0	2.0	2.0	2.1
	Biodiversity and forestry framework	2.5	1.5	2.5	3.0	3.0	2.0	2.4
	Land-use management framework	1.5	1.5	2.0	2.5	1.0	1.5	1.7
Sub-dimension average score		2.2	1.7	2.2	2.5	2.0	1.8	2.1

#### Freshwater management frameworks are hampered by poor co-ordination

The Western Balkans are home to rich, diverse and interconnected transboundary freshwater resources, from the karstic regions of the Dinaric Alps and the Adriatic coast to the Danube, Drin and Vardar river basins and the ancient lakes of Ohrid, Prespa and Skadar. However, water resources are distributed

unevenly across the region (Figure 16.7) and are used differently by the assessed economies. In contrast to most OECD countries, where agriculture uses the largest share of water resources, in Albania, BIH, Kosovo and Montenegro, households account for the largest share (Figure 16.8). In Serbia, the industrial sector accounted for 75% of total freshwater abstractions in 2017, mainly for cooling purposes in electric power generation. Anthropogenic pressures on water resources, including water pollution resulting from insufficiently treated industrial and municipal wastewater, still raise key concerns in this area. Moreover, the lack of data and projections on water demand from agriculture, industry (including energy) and households in all assessed economies complicates decisions on handling competing uses now or in the future.

Figure 16.7. Renewable internal freshwater resources per capita (2017) m³ per capita

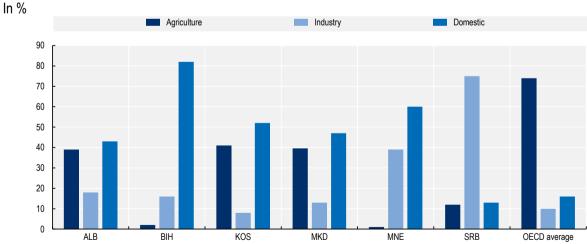


Note: Latest data available for each economy (2018-2020). EU data is from 2017.

Source: Data based on responses to Environmental Policy questionnaires sent by domestic authorities and statistical offices; (World Bank, 2017<sub>[18]</sub>), "Renewable internal freshwater resources per capita" (dataset), <a href="https://data.worldbank.org/indicator/ER.H2O.INTR.PC?locations=EU">https://data.worldbank.org/indicator/ER.H2O.INTR.PC?locations=EU</a>.

StatLink https://doi.org/10.1787/888934254886

Figure 16.8. Freshwater abstractions by sector (2017)



Source: Data based on responses to Environmental Policy Questionnaires sent by domestic authorities and statistical offices; (World Bank, 2017<sub>[18]</sub>) "Freshwater abstractions by sector" (dataset), https://data.worldbank.org/indicator/ER.H2O.INTR.PC?locations=EU.

StatLink https://doi.org/10.1787/888934254905

The groundwork for the freshwater management legislative framework has been done in most of the assessed economies. Albania and North Macedonia have adopted new laws and strategies, though there

have been no major changes to the frameworks in BIH, Montenegro and Serbia. Kosovo's framework is still only partially developed and efforts need to be stepped up to complete it. Implementation has been rather limited throughout the region. Some positive developments have been noted in Montenegro, which has signed the new EU-Instrument for Pre-Accession Assistance (IPA) project on Support to the implementation and monitoring of water management. Kosovo has created reservoirs to improve drinking water supply, but their safety management is inadequate, especially in light of water stress resulting from climate change (European Commission, 2020[9]). Moreover, monitoring and evaluation mechanisms are largely lacking, except in Serbia which conducts annual water status monitoring.

The planning and management of hydropower plants, including a requirement for a detailed environmental impact assessment (EIA), are regulated by law in all assessed economies. However, the legal procedures have been largely circumvented in all six economies, in particular for mini hydropower plants. In practice, there are too many cases in which licences for hydropower plants are given before an EIA report is issued or without taking the EIA report into account. This problem is particularly important in Albania, as most of its nationally produced electricity comes from hydropower.

Donors have driven the international co-ordination of transboundary river basins,<sup>8</sup> but efforts are hampered by poor domestic co-ordination among water-related public institutions. River basin management systems involving co-operation with neighbouring economies have been developed since the last assessment in Albania, BIH, Kosovo and North Macedonia.

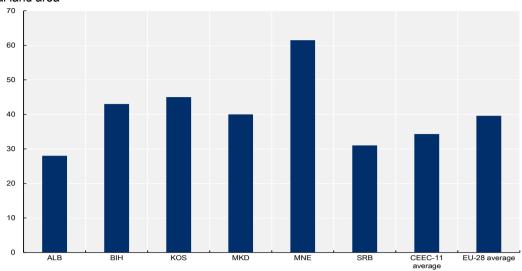
## Biodiversity and forestry frameworks are in place but laws are not properly enforced and inventories are mostly lacking

The Western Balkan's richly varied geography is mirrored in the diversity of its flora and fauna. Moreover, the region's forests serve as valuable sources of income (timber and other forest products, agroforestry, and recreation) and reservoirs of biodiversity, which also provides social benefits. Forests in the WB6 cover a larger share of territory than in the average OECD country (Figure 16.9), with Montenegro being the most forest-rich economy, accounting for 61.5% of its territory. However, human pressures are major threats to protecting biodiversity and maintaining forestry resources, and include illegal logging, tourism, urbanisation, hydropower, pollution, illegal waste, as well as forest fires, climate change and invasive species.

Strong biodiversity and forestry frameworks are key to overcoming these challenges and conserving the region's ecosystems. All assessed economies have adopted policy frameworks for biodiversity conservation. North Macedonia adopted its National Biodiversity Strategy in 2018 and was drafting a new Law on Nature at the time of writing. Biodiversity frameworks are also being updated in Kosovo, the Federation of Bosnia and Herzegovina (FBiH) and Serbia. Since the last assessment a new Law on Forests (2020) and Forest Policy Document (2018) have been adopted in Albania and a Forest Management Programme was adopted in Montenegro in 2019.

Figure 16.9. Forest area in the Western Balkans (2018)

% of total land area



Note: CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: Data based on responses to Environmental Policy questionnaires sent by domestic authorities and (World Bank, 2018[19]), "Forest area" (dataset), https://data.worldbank.org/indicator/AG.LND.FRST.ZS?locations=OE.

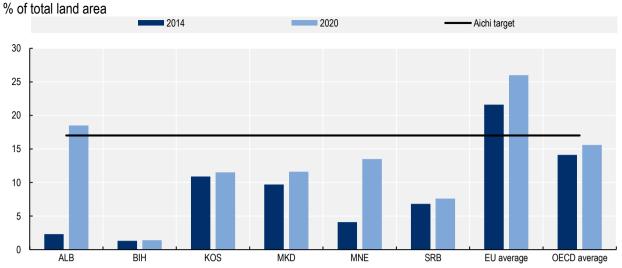
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Biodiversity is monitored annually in Albania, whose government has developed a national biodiversity platform, which is currently the largest aggregator of primary biodiversity data in the economy. It also monitored annually in Montenegro through direct co-operation with institutions responsible for different thematic areas as prescribed by the Law on Nature Protection. Information is also collected in Kosovo (biodiversity indicators, including conservation status of threatened species and habitats) and Serbia (indicators on biodiversity, forestry, hunting and fishing, as well as sustainable use of natural resources) by their respective statistical offices. North Macedonia plans to establish a monitoring system under the biodiversity strategy. Entities in BIH lack the capacity to establish their own monitoring systems as stipulated in their respective laws on nature protection (UNECE, 2019[15]). Moreover, up-to-date forest inventories are lacking in BIH, Kosovo and North Macedonia. Forest inventories exist in Albania (completed in 2021) and in Montenegro, and Serbia's Second National Forest Inventory is expected to be completed by 2022. Even when forestry legal and policy frameworks are in place, local forest management capacity and enforcement are insufficient. Illegal logging and forest fires are legally regulated in all assessed economies; however, sanctions are rarely enforced.

Implementation of biodiversity and forestry strategies has been rather limited since the last assessment, in particular because of poor co-ordination among the relevant bodies at central and local levels. Nevertheless, Albania, both entities of BIH, Kosovo and North Macedonia have adopted plans for the protection of endangered species and fauna, as well as proclaiming new protected areas. Most economies have also established information systems for nature protection.

All WB6 economies (except Kosovo due to its status), are parties to the Convention on Biological Diversity (CBD), an international treaty with 196 parties. The CBD includes the 20 Aichi Biodiversity Targets, which address five strategic goals. Aichi Target 11 states that by 2020, at least 17% of a party's terrestrial territory should be designated as protected areas. Progress towards this target has been made in almost all assessed economies (Figure 16.10), but only Albania has managed to exceed the 17% target, reaching 18.5% in 2020 despite having one of the lowest levels in 2014. With over 10% of their land area designated as protected, Kosovo, Montenegro and North Macedonia have also made significant progress.

Figure 16.10. Terrestrial protected areas (2014 and 2020)



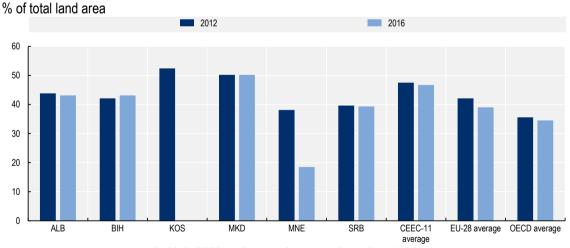
Note: The latest data for Bosnia and Herzegovina are from 2018. EU average is EU-28 for 2014 and EU-27 for 2020. Source: For WB6: Data based on responses to Environmental Policy questionnaires sent by domestic authorities and statistical offices and (OECD, 2020<sub>(201)</sub>). *Protected Areas (database)*. https://data.oecd.org/biodiver/protected-areas.htm.

StatLink https://doi.org/10.1787/888934254943

#### Land-use frameworks could be more coherent and better developed

In addition to the above-average share of land covered by forests, agricultural land (especially arable and permanent cropland) accounts for a larger share of the territory in the assessed WB6 economies than it does in OECD economies (Figure 16.11). This trend has been slowly decreasing in recent years, with the most pronounced example being Montenegro (down from 38% in 2012 to 18.5% in 2016).

Figure 16.11. Agricultural land (2012 and 2016)



Note: No data available in Kosovo for 2016. CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: Data based on responses to Environmental Policy Questionnaires sent by domestic authorities and statistical offices and (World Bank, 2016<sub>[21]</sub>), Agricultural land, World Bank data (Database),

https://data.worldbank.org/indicator/AG.LND.AGRI.ZS?end=2016&name\_desc=false&start=1961.

StatLink https://doi.org/10.1787/888934254962

Land-use frameworks have changed little in most assessed economies since the last Competitiveness Outlook, except for North Macedonia. Major developments have been noted in North Macedonia's legislative framework with the adoption of a new Law on Urban Planning (2020), and the upcoming Law on Spatial Planning and National Spatial Plan (expected in 2021). Serbia has a relatively well-developed land-use framework, a new Spatial Plan for the period 2021-35 is being prepared and monitoring is in place. In all other economies legislative frameworks are still underdeveloped, and little progress has been achieved on the policy side. Montenegro has adopted a new Spatial Plan and Kosovo is updating relevant strategies which will indirectly regulate land use.

Some projects on agricultural land consolidation<sup>10</sup> exist in Kosovo, and Serbia is in the process of establishing a domestic soil monitoring programme. Albania, Kosovo and the RS in BIH are preparing municipal land development plans together with local municipalities, which aim to ensure sustainable territorial development and rational land use. The fact that key indicators of land-use management are not collected regularly (except for agricultural, forest and other semi-natural land in Serbia), or georeferenced or harmonised across public bodies, is holding back proper implementation. Also, outdated building codes and illegal construction remain important challenges in the region, especially in Albania in light of the economy's vulnerability to geophysical hazards, such as earthquakes. The Western Balkan region is threatened by multiple hazards; the 2020 floods in Kosovo and Serbia and the 2019 earthquake that hit Albania highlighted the weaknesses of land-use frameworks and systems.

#### The way forward for the natural asset base

• Design and implement effective, efficient, and inclusive freshwater policy responses to water challenges. The WB6 should ensure the proper collection of data and projections on water demanded from different economic sectors to guide decisions on water use. The OECD Toolkit for Water Policies and Governance – especially Turkey's data collection example – is a good source of advice on this matter (Box 16.6).

#### Box 16.6. The OECD Toolkit for Water Policies and Governance

The OECD Toolkit for Water Policies and Governance was launched in March 2021 to support better water policies for better lives across governments and stakeholders in OECD member and non-member economies. It compiles policies, governance arrangements and related tools that facilitate the design and implementation of water management practices in line with the OECD Council Recommendation on Water. The recommendation was unanimously adopted by the OECD Council in December 2016 and puts forward an international standard with high-level policy guidance on a range of topics relevant for the management of water resources and delivery of water services.

The toolkit highlights good practices and recommendations on the following areas: 1) general water policy, 2) managing water quantity, 3) improving water quality, 4) managing water risks and disasters, 5) ensuring good water governance, 6) ensuring sustainable finance, investment and pricing for water and water services, and 7) pricing instruments for water management services.

For instance, the toolkit provides policies and tools implemented in different countries on using data and information to guide policy, which is currently lacking in the WB6. Relevant data on water resources and water services is the basis for tailored water governance strategies, measurement of results and indications of possible bottlenecks. Production and exchange of information is also vital to building trust and a shared vision among responsible authorities and stakeholders. National statistical offices have a key role in generating such data and/or harmonising metrics to allow comparability across units and time. Sub-national levels of government and regional/local development agencies also have an important role to play in collecting and using data to inform the water policy process.

In 2013, **Turkey** created an online National Water Information System (NWIS) that compiles nationwide data on water quality and quantity, allocation regimes and water-related risks. The NWIS shows water data at basin level and aims to encourage all water-related actors to be active stakeholders in data production. Furthermore, the NWIS helps identify data gaps and duplications and gathers data, maps, statistics, and policy documents on nine modules: environmental infrastructure, basin management, climate change, groundwater, surface water, water quality, drought, floods and water allocation.

Source: (OECD, 2021<sub>[22]</sub>), *Toolkit for Water Policies and Governance: Converging Towards the OECD Council Recommendation on Water*, <a href="https://doi.org/10.1787/ed1a7936-en">https://doi.org/10.1787/ed1a7936-en</a>.

- Enforce close regional co-operation at the river basin level to protect and manage water, bringing together all interests upstream and downstream. A joint approach to the diverse and interconnected transboundary freshwater resources in the WB6 is still in its infancy and the main river basin management projects are donor driven. All EU Member States have used a river basin approach for water management since the adoption of the EU Water Framework Directive, which establishes a legal framework to protect and enhance the status of aquatic ecosystems, prevent their deterioration and ensure long-term, sustainable use of water resources. The International Commission for the Protection of the Danube River (ICPDR), which implements the EU Water Framework Directive, could be a model for other river basins in the region (Box 16.7).
- Develop a comprehensive land-use policy framework to ensure effective land-use planning, preserve land and foster resilience to hydro-meteorological and geophysical hazards. To achieve this, the WB6 should focus on establishing an all-inclusive land-use policy framework focusing on modernising the building codes, updating seismic hazard maps and combatting unregulated and illegal building activities by enforcing the cadastre.

#### Box 16.7. The International Commission for the Protection of the Danube River (ICPDR)

The International Commission for the Protection of the Danube River (ICPDR) works to ensure the sustainable and equitable use of waters in the Danube River Basin. The work of the ICPDR is based on the Danube River Protection Convention (DRPC), the major legal instrument for co-operation and transboundary water management in the Danube River Basin. In 2000, the ICPDR contracting parties nominated the ICPDR as the platform for the implementation of all transboundary aspects of the EU Water Framework Directive (WFD).

#### The goals of the ICPDR

Three key elements of the ICPDR's management plans provide the three pillars of action that are needed for the Danube to achieve:

- a Cleaner Danube this means reducing pollution from settlements, industry and agriculture;
- a Healthier Danube this means protecting rivers as ecosystems that provide a living environment for aquatic animals and plants, as well as services for people such as drinking water and recreation;
- a Safer Danube this means a safer environment for people to live without the fear of major flood damage.

#### Of the many challenges faced by the ICPDR, the highest priorities remain:

- Organic substance pollution
- Nutrient pollution

- Hazardous substance pollution
- Hydromorphological alterations
- Flood risk management.

Source: (International Commission for the Protection of the Danube Rive, 2020<sub>[23]</sub>), webpage, https://www.icpdr.org/main.

#### **Environmental quality of life (Sub-dimension 13.3)**

The third sub-dimension assesses how environmental conditions affect people's health and quality of life. Three qualitative indicators assess the environmental quality of life in the WB6 economies: 1) the air quality framework; 2) the water supply and sanitation system; and 3) industrial waste management. Air pollution is a very serious environmental threat, resulting in premature deaths, increased respiratory disease and lower crop yields. The absence of high-quality water supplies and sanitation can increase health costs and decrease labour productivity. Finally, poorly managed industrial waste can result in contaminated land, with serious repercussions for human and natural health.

On average overall, the WB6 economies score 2.3 for this sub-dimension (Table 16.4), indicating that policy frameworks for air quality, water supply and sanitation and industrial waste management have mostly been adopted. The economies, especially Montenegro and North Macedonia, have made the most progress in developing frameworks for air quality, which is one of the most pressing issues in the region. Industrial waste management frameworks and implementation are still lagging behind.

Table 16.4. Scores for Sub-dimension 13.3: Environmental quality of life

Sub-dimension	Qualitative indicator	ALB	BIH	KOS	MKD	MNE	SRB	WB6 average
Sub-dimension 13.3: Environmental quality of life	Air quality framework	2.0	2.0	2.5	3.5	3.5	2.5	2.7
	2. Water supply and sanitation system	2.0	2.0	2.5	1.5	2.5	3.0	2.3
	3. Industrial waste management	1.5	1.5	1.5	2.0	2.5	2.0	1.8
Sub-dimension average score		1.8	1.8	2.2	2.3	2.8	2.5	2.3

#### Air pollution levels remain high, but action is being taken

Air quality is still a major concern in the region, with concentrations of air pollutants such as fine particulate matter ( $PM_{2.5}$ ) ranking among the highest in Europe.  $PM_{2.5}$  is the air pollutant posing the greatest risk to health globally, affecting more people than any other pollutant. With an average concentration of 25.77  $\mu$ g/m³ in 2019 for the six economies, the exposure of these economies' populations to  $PM_{2.5}$  is two to three times higher than the WHO recommended highest levels of 10  $\mu$ g/m³. It is also much higher than OECD and CEEC-11 values (Figure 16.12). However, promisingly, since 2014,  $PM_{2.5}$  levels have been slowly decreasing in all economies in the region. Across the region, power generation, heating, industry, and transport are the main sources of air pollution. The problem is exacerbated in winter, when air pollution increases due to solid fuel heating (using coal as a low-cost source of energy). Some of the WB6 economies plan to continue to rely primarily on coal-fired power generation to supply growing energy consumption, and to expand their existing coal fleet, while continuing to subsidise coal (Kosovo and Serbia in particular). Uncontrolled pollution, notably from outdated thermal power plants, calls for urgent action. In 2016, 16 coal-fired thermal power plants in the WB6 emitted more sulphur dioxide than all of the 250 plants in the EU combined (Balkan Green Foundation, 2016[24]).

10

Figure 16.12. Annual mean population exposure to PM<sub>2.5</sub> air pollution (2014-19)

Micrograms per cubic metre (µg/m³) 2014 WHO guideline 40 35 30 25 20 15

Note: PM2.5 - fine particulate matter. Data for Kosovo only available until 2015. CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: (OECD, 2020[25]), OECD Environment Statistics (database), https://stats.oecd.org/Index.aspx?DataSetCode=EXP\_PM2\_5. For Kosovo: (World Bank, 2019[26]), Air pollution management in Kosovo,

KOS

https://documents1.worldbank.org/curated/en/214511576520047805/pdf/Air-Pollution-Management-in-Kosovo.pdf

MKD

StatLink https://doi.org/10.1787/888934254981

EU-28 average

CEEC-11

Nevertheless, with an average of 2.7 for the air quality framework indicator (Table 16.4), the six assessed economies have made considerable progress in developing their frameworks and harmonising their legislation with the EU acquis (such as Directive 2008/50/EC on ambient air quality). Since the last assessment, Albania's main law on the protection of ambient air quality has come into force (in 2018) and Albania, Kosovo, Montenegro, North Macedonia and Serbia have all adopted policy frameworks with clearly defined objectives for air quality management. Meanwhile, the Swedish Environmental Protection Agency Programme on improving air quality and air quality management in Bosnia and Herzegovina (2017-2021) aims to build the capacity of the key government institutions to manage air quality and improve air quality data collection. Local air quality plans, urgently needed for areas in which pollutant levels regularly exceed health guidelines, have been developed in North Macedonia and Serbia and are being prepared in Albania (started in 2021) and Kosovo (envisaged for the 2020-2025 period).

Implementation varies across the assessed economies. Implementation in Montenegro and North Macedonia is relatively advanced with several programmes in place for reducing air pollution and raising public awareness of air quality improvements. An air protection programme is being developed in Serbia and is expected to align Serbia's practices with EU directives. 12 Ad-hoc measures are taken when pollution limit values are exceeded in Albania and BIH. However, Kosovo has not yet implemented most measures in its air management strategy. For instance, the 2018 ban on the use of coal for heating in public buildings was not backed up by any financial support and consequently has not seen any meaningful implementation.

The fact that air quality frameworks do not stipulate clear obligations for polluters in the assessed economies impedes the efficiency of responses. In the EU, best available techniques for a range of industrial processes and emission rates must be taken into account by industry. They can also serve as a good basis for the WB6 (Box 16.8).

Air quality is monitored regularly across the region by permanent air quality monitoring stations and information on air quality is mostly made available promptly. The exception is Albania, where all stations have been turned off due to a lack of funding (European Commission, 2020[27]). Since the last assessment, North Macedonia has been working on establishing a national environmental information system to gather environmental data in one central database. Montenegro has re-established reporting on air pollutant emissions and provided all missing data for the period 2011-18, which will help in measuring the effect of air quality measures on actual emission levels. In Kosovo, a new action plan for air quality monitoring is under development with international support. Although air monitoring has improved in BIH, it is not well co-ordinated, with different methodologies used by different entities, which means there are no air quality data for the entire economy.

#### Box 16.8. The EU's Best Available Technique Reference Documents (BREFs)

The BREFs are a series of reference documents covering, as far as practical, the industrial activities listed in Annex 1 to the EU's integrated pollution prevention and control (IPPC) Directive. They provide descriptions of a range of industrial processes and their respective operating conditions and emission rates. Member States are required to take these documents into account when determining best available techniques generally or in specific cases under the directive. They can also serve as a good basis for potential candidates.

The BREFs were developed to exchange information between industrial sectors and non-government organisations (NGOs) in different Member States and the European Integrated Pollution Prevention and Control Bureau (IPCC/EIPPCB).

Non exhaustively, these documents cover:

- common waste gas treatment in the chemical sector
- · emissions from storage
- ferrous metals processing industry
- industrial cooling systems
- large combustion plants
- refining of mineral oil and gas
- waste incineration and treatment.

Source: (EEA, n.d.<sub>[28]</sub>), EU Best Available Techniques Reference Documents (BREFs),

https://www.eea.europa.eu/themes/air/links/guidance-and-tools/eu-best-available-technology-reference

#### Water supply and sanitation strategies are in place but need sustainable funding

Access to an improved water source (e.g., household connection, public standpipe or protected dug well) is nearly universal in all assessed economies (all over 95%). A smaller share of the population is connected to sewage systems: 35% in BIH, 51% in Albania and 58% in Serbia (UNECE, 2019[15]). Far fewer people are connected to wastewater treatment facilities, with the average for the WB6 around 6.5%, which is significantly lower than the EU average of 86%. However, this share varies from 58.4% in Montenegro to 1% in Kosovo (Figure 16.13). Moreover, water pollution and water losses from the system are key challenges. The losses range between 33% in Serbia to almost 60% in Bosnia and Herzegovina, Kosovo, and North Macedonia, often due to outdated water supply networks. Despite these statistics, only the government of North Macedonia has started to take action to decrease these losses. In addition, infrastructure is often made of hazardous material – such as asbestos in BIH.

% of population

90

80

70

60

40

30

20

ALB

BIH

KOS

MKD

MNE

SRB

CEEC-11

EU-28 average OECD average

Figure 16.13. Population connected to wastewater treatment facilities (2018)

Note: Data for Bosnia and Herzegovina are the simple average of FBiH and RS. There are no wastewater treatment plants in the Brcko District. No data available for Croatia. CEEC-11=Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: Data based on responses to Environmental Policy Questionnaires sent by domestic authorities and statistical offices and (OECD, 2018<sub>[29]</sub>), Wastewater treatment, <a href="https://stats.oecd.org/Index.aspx?DataSetCode=WATER\_TREAT">https://stats.oecd.org/Index.aspx?DataSetCode=WATER\_TREAT</a>.

StatLink https://doi.org/10.1787/888934255000

The water supply and sanitation legislative framework is almost fully aligned (95%) with the EU *acquis* in Montenegro and North Macedonia. Serbia needs to make significant efforts to further align its legislation with the EU *acquis* and to strengthen administrative capacity, in particular for monitoring, enforcement and inter-institutional co-ordination (European Commission, 2020<sub>[9]</sub>). Kosovo's policy framework has been complemented with a new strategic plan for regional water companies (2018) and Albania's legislative and policy frameworks were being updated at the time of drafting with the preparation of the Law on Water Supply and Sewerage Sector and a new strategy. No major changes have been recorded in Bosnia and Herzegovina, but the Water and Sanitation Infrastructure Project (WATSAN) implemented in both entities will harmonise the water supply and sanitation frameworks with EU legislation. 15

Water supply and sanitation infrastructure projects have been implemented since the last assessment, with new wastewater treatment plants (WWTP) being constructed in all assessed economies. WWTPs are also planned in Belgrade and Skopje where a lack of plants means that all wastewater is discharged untreated into rivers. However, water supply and sanitation infrastructure projects are still largely dependent on donor funding throughout the assessed economies, and water tariffs are too low to cover service costs. The long-term affordability of new infrastructure maintenance under these conditions appears doubtful. For instance, although eight new plants were built in Albania in 2016, the lack of finance and limited technical capacities rendered three of them idle, and their long-term operational arrangements are unclear (UNECE, 2019[15]).

#### Industrial waste management frameworks could be strengthened further

Little progress has been achieved on the industrial waste management framework. Across the assessed economies, laws and strategies on waste management also regulate the management of industrial waste. As regards managing and controlling industrial risks and accidents, the EU Seveso-III Directive (2012/18/EU) has been fully transposed into legislation in Kosovo, Montenegro, and North Macedonia, and partially in Albania (European Commission, 2020[9]). Alignment with most of the EU *acquis* is at an early stage in Serbia, including on the Industrial Emissions Directive. However, Serbia adopted its long-awaited national emission reduction plan in 2020 and established a database strengthening the monitoring of Seveso III operators (European Commission, 2020[9]).

In terms of chemicals, North Macedonia, Serbia, and the RS in BIH have an official register of chemicals on the market, as well as classification, packaging and labelling rules. Kosovo and Montenegro are working on establishing a domestic chemical register. By law, any chemicals produced in or imported into Albania need to be registered on an electronic chemical register, but the register has not yet been established. Pollutant Release and Transfer Register (PRTR) systems have been established in Albania, North Macedonia and Serbia. The PRTR Protocol has been ratified by Montenegro but the register has not yet been set up. Kosovo and the FBiH and RS in BIH have established their registers but they are still not fully operational. No hazardous waste disposal facilities exist in any of the assessed economies and waste must be exported for treatment. A project is being implemented for this in Kosovo, but it has been stalled for the past two years. <sup>16</sup>

There is no policy or legislative basis for soil protection in any of the assessed economies, except for Serbia, which recently established a national soil monitoring programme. Serbia has also established reporting on contaminated sites in 2020 through the cadastre of contaminated sites information system as part of the environmental information system. Provisions for soil protection will also be included in the amendments to the Law of Environment of North Macedonia, which was in the process of being adopted by the government at the time of drafting. Developments on identifying contaminated areas have only been recorded in Kosovo and Montenegro, with the former starting a World Bank-financed project to clean up contaminated areas.

#### The way forward for environmental quality of life

- Improve air quality by decreasing dependence on fossil fuels in the energy mix, upgrading household heating systems, reducing transport emissions, and decreasing emissions from industry.
- Phase out coal subsidies and decarbonise the energy sector, and introduce incentives that support renewable integration. This will be particularly important if the EU moves to introduce a carbon border tax (currently being discussed), as this would make energy-intensive economic sectors increasingly uncompetitive. For more information, see the Energy policy chapter.
- **Include measures to prevent air emissions from industry** more regularly in the environmental permits for industrial facilities. These could follow those described in the EU Best Available Technique Reference Documents (Box 16.8).
- **Promote sustainable transport options**: modernise the bus fleet (low-emitting buses), and influence private vehicle purchasing and renewal decisions through ecological vehicle taxes which vary according to vehicle age and level of CO<sub>2</sub> emissions. France's bonus-malus scheme could be a good model to follow, which imposes a fee on vehicles with high CO<sub>2</sub> emissions or fuel consumption and provides a rebate for vehicles with low CO<sub>2</sub> emissions or fuel consumption (Box 16.9).

#### Box 16.9. Feebate schemes to incentivise low-carbon vehicles

Feebates, also called bonus-malus schemes, levy a sliding scale of fees (excise taxes) on products (or activities) with above-average emissions, and a sliding scale of rebates (subsidies) for products (or activities) with below-average emissions. By encouraging consumers to shift to less polluting vehicles to benefit from the rebate and avoid the tax, they have been shown to substantially encourage the uptake of motor vehicles with lower  $CO_2$  emissions – e.g., in France (D'Haultfœuille, Givord and Boutin,  $2014_{[30]}$ ). The strength of the incentives to reduce emissions depends on the amount by which feebates make low-carbon products cheaper than high-carbon products. Feebates are typically designed to be revenue-neutral – the fees collected on carbon-intensive products are used to subsidise the cleaner alternatives – even if in fact they have sometimes turned out to be more costly than intended (Teusch and Braathen,  $2019_{[31]}$ ). They generally do not raise government revenues that could be used for other purposes, including redistribution. However, the fact that feebates provide both carrots (i.e., the rebate) and sticks (i.e., the fee) may increase the public acceptability of this instrument.

Governments can complement these instruments with carbon price trajectories that provide guidance to consumers and producers without the need to raise carbon prices immediately when the economy has yet to recover from the crisis. Design challenges vary by instrument and may include agreeing a reasonable strike price, setting a credible baseline against which to measure emissions reductions and defining emission intensity standards for a wide range of products.

Source: (OECD, 2020<sub>[32]</sub>), Green Budgeting and Tax Policy Tools to Support a Green Recovery, https://doi.org/10.1787/bd02ea23-en.

- Increase the number of wastewater treatment plants and reassess the fee structure so that
  fees cover the service costs. Enforce the implementation of the water-user and polluter pays
  principles<sup>17</sup> for all water users and dischargers, paying attention to vulnerable social groups.
  Ensure regular maintenance of the existing WWS network.
- Introduce land-use management and soil protection legislative and policy frameworks. There are almost no relevant frameworks in the region and processes remain ad-hoc. Given the environmental importance of soil protection in most economies of the region, it is important to introduce a comprehensive policy framework for identifying, characterising and remediating contaminated sites. This should be backed up by concrete guidelines to facilitate the process of further land identification and its clean-up. Economies could follow the approach taken by Israel (Box 16.10).

#### Box 16.10. Cleaning up contaminated sites in Israel

Contaminated land has been discovered in hundreds of industrial, commercial and agricultural areas in Israel. These areas include several sites where hazardous waste was buried before the hazardous waste management site at Ramat Hovav was established. Such sites affect soil and water, with groundwater contamination found at 30% of sites.

Steps have been taken to develop a comprehensive framework for the identification, characterisation and remediation of contaminated sites. In 2000, the MoEP formulated a policy for cleaning up contaminated land and prepared several guidelines to facilitate the process. These documents included preliminary clean-up targets for 100 pollutants to serve as a basis for land remediation and guidelines on planning and implementing soil site characterisation, as well as guidelines for remediating contaminated soil at petrol stations. In 2009, the MoEP identified the 20 most severely polluted sites and began remediation measures. For example, EUR 42 million was allocated for remediating the

hazardous waste treatment site at Ramat Hovav, which included a closed landfill, sedimentation and evaporation ponds, and temporary storage areas.

Since addressing past pollution will probably take decades, immediate actions focused on immediate risks, such as at Ramat Hovav, and monitoring other sites for potential contamination. A comprehensive framework for rehabilitation efforts was developed. It framework included instruments to carry out soil surveys on land suspected to be polluted (within the framework of building permits and real estate transactions, and state-owned land leasing agreements), with contamination and clean-up status recorded in the land registry. A database of contaminated and potentially contaminated sites (which includes state-owned land, such as army bases, defence industry sites, government-owned companies, as well as privately owned contaminated areas) was created. A risk-based methodology for soil and groundwater, approved in 2011, has enabled better risk assessment procedures.

Source: (OECD, 2011<sub>[33]</sub>), Environmental Performance Reviews, Israel, <a href="https://doi.org/10.1787/9789264117563-en">https://doi.org/10.1787/9789264117563-en</a>.

#### Conclusion

The environmental legislative framework is relatively well advanced in the Western Balkan economies; progress has been made to transpose EU environmental directives and adopt missing legislation on climate change and on managing water, biodiversity, and forestry. However, the challenge now lies in implementing key measures. Air pollution, unregulated and illegal dumping of waste and the lack of wastewater treatment remain the most pressing challenges in the region. Poor co-ordination mechanisms among central, regional and local authorities and lack of human and financial resources are hampering proper implementation, while the lack of environmental monitoring systems, national inventories and statistics is hindering evidence-based policy making.

Long-term economic competitiveness and social development depends on fostering growth while safeguarding natural assets which provide vital resources and environmental services. Despite some progress, a sufficiently coherent policy framework to grow and boost competitiveness in an environmentally sustainable way is still lacking in all six Western Balkans economies. Successful green growth in the region is closely tied to the implementation of the recommendations put forward in this chapter, as well as in the other chapters relevant to environmental policy.

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#### **Notes**

- <sup>1</sup> In Bosnia and Herzegovina, competences for environment and climate change rest with the two entities, and Brčko District. In the FBiH, the competence is shared between the Federation and the ten cantons. At the state level, the Ministry of Foreign Trade and Economic Relations (MOFTER) BIH is responsible for defining policies and basic principles, co-ordinating activities and consolidating entity plans with those of international institutions in the area of energy, agriculture, protection of environment and use of natural resources and tourism. Entity level institutions are responsible for strategic framework, policy setting, data exchange and reporting.
- <sup>2</sup> The 11 Central and Eastern European countries (CEECs) joining the European Union: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.
- <sup>3</sup> The NECP will define targets in the field of renewable energy sources, energy efficiency and GHG emissions reductions to 2030, and with a long-term vision to 2050. The NECP is prepared through the IPA 2017 project Further Development of Energy Planning Capacity, which started in February 2021.
- <sup>4</sup> North Macedonia in particular hasn't submitted national communications since 2014 and Albania hasn't submitted any Biennial Update Reports.
- <sup>5</sup> In Albania, climate-related risks are partly identified in the UNFCC report and a Disaster Risk Reduction strategy is being prepared. Serbia has a programme for disaster risk management but climate change policies are not sufficiently reflected in it. More information in the Albania and Serbia profiles.
- <sup>6</sup> The project focuses on the development of integrated water resource management and implementation of adaptation strategies in the Drin River Basin, covering the following economies: Albania, Kosovo, Republic of North Macedonia and Montenegro. It is implemented by GIZ. The main objective is to mitigate the impacts of climate change by focusing on flooding and drought risk management as well as strengthening regional co-operation as it pertains to the management of water resources.
- <sup>7</sup> The Waste Management Strategy (WMS) with the related Waste Management Plan (WMP) (2020-2035) and the National Sectorial Plan for Solid Waste Management (NSPSWM) (2019-2035).
- <sup>8</sup> For instance, the West Balkans Drina River Basin Management project is led by the World Bank and aims at managing the transboundary Driva River Basin (2016-2021) between Bosnia and Herzegovina, Montenegro and Serbia. The World Bank is also providing technical assistance for improving the effectiveness of the joint flood management by the economies co-operating in the Sava River basin (Bosnia and Herzegovina, Montenegro, Serbia).
- <sup>9</sup> Aichi Target 11 also covers marine protected areas. Limited progress has been achieved in Albania, with 3% of its marine areas protected (the target being 6% by 2020). No marine protected areas have been established in Montenegro (the target being 10% by 2020 but research is currently underway into three potential marine protected areas (Platamuni, Katic and Stari Ulcinj). No data are available for Bosnia and Herzegovina, but the authorities report that the Aichi Biodiversity Targets have not been achieved.
- <sup>10</sup> The current agricultural land consolidation project, Strengthening Spatial Planning and Land Management (SSPLM), involves 21 cadastral zones and 10 municipalities. It aims to provide technical

assistance for the preparation of municipal land development plans, and is to be finalised by the end of 2021.

- <sup>11</sup> Data are unavailable for Kosovo beyond 2015.
- <sup>12</sup> Supported by an EU-funded project, Serbia was developing the Air Protection Programme and Action Plan at the time of drafting (to be finalised in 2021). This programme is expected to provide a basis for further developing and adopting bylaws and the continued implementation of EU legislation in the field of air protection.
- <sup>13</sup> The legislative framework in North Macedonia was amended in 2017 with the adoption of the Law on Setting the Prices for Water Services, which represents the main legal act in this area and is almost fully aligned (95%) with the EU *acquis*. In addition to this legislative change, in 2017 the government conducted a National Water Study on an investment framework for the implementation of projects for water supply and wastewater treatment, in accordance with the requirements of the relevant EU Directives.
- <sup>14</sup> Although the legislative and policy framework in Albania is not fully aligned with the EU *acquis* in the area of wastewater management, monitoring mechanisms are envisaged, the responsible institution has been assigned and concrete objectives, budget, measures and a timeline have been set.
- <sup>15</sup> The overall objectives of WATSAN (to be finalised by the end of 2021) are to improve the living conditions of the population, secure adequate hygiene in water supply and sanitation, and implement environmental protection measures, in line with the obligations of EU accession and harmonisation with EU legislation, in particular the Water Framework Directive, Drinking Water Directive and Urban Waste Water Directive.
- <sup>16</sup> The government had planned to build a central disposal facility for hazardous waste in 2018 in the municipality of Fushe Kosove/Kosovo Polje. It organised several rounds of consultations with citizens, but agreement to build the facility could not be reached. See Kosovo economy profile.
- <sup>17</sup> The polluter pays principle is a basic principle of all European environmental policies. It is specifically referred to in the EU Water Framework Directive (WFD), which establishes clear requirements concerning financing for water management in EU Member States. The polluter pays principle states that those who pollute should bear the costs of preventing damage to human health or the environment.



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